

FRENKEL', Naum Zakharovich; VASIL'YEV, O.F., redakter; FRIDKIN, A.M.,  
tekhnicheskiiy redaktör.

[Hydraulics] Gidravlika. Izd. 2-ee, perer. i dop. Moskva, Gos.  
energ. izd-vo, 1956. 456 p. (MLRA 9:5)  
(Hydraulics)

SOV/124-57-8-8566

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 8, p 5 (USSR)

AUTHOR: Vasil'yev, O. F.

TITLE: The Scientific Legacy Left by I. S. Gromeko (Nauchnoye nasledie I. S. Gromeki)

PERIODICAL: Tr. In-ta istorii yestestvozn. i tekhn. AN SSSR, 1956, Vol 10, pp 245-268

ABSTRACT: Brief biographical notes and discussion of the works of Ippolit Stepanovich Gromeko (1851-1889), professor at the Kazan' University, famed for his investigations in the field of hydro-mechanics. I. S. Gromeko's dissertation "Some Types of Motion of an Incompressible Fluid" (1881) and its role in the development of the theory of helicoidal fluid motions are considered in detail. Bibliography: 35 references.

G. K. Mikhaylov

Card 1/1

VASIL'YEV, O.F.

Hydraulic jump and spreading of flow in a widening bed. Dokl.AN SSSR 106  
no.5:797-800 P '56. (MIRA 9:7)

1.Moskovskiy inzhenerno-stroitel'nyy institut imeni V.V.Kuybysheva.  
Predstavlena akademikom L.I.Sedevym.  
(Hydraulic jump) (Fluid dynamics)

KISILEV, Petr Grigor'eyvich; ZHURIN, V.D., prof., doktor tekhn.nauk, red.;  
ORLOV, V.A., red.; VASIL'YEV, O.F., red.; MEDVEDEV, L.Ya., tekhn.  
red.

[A manual of hydraulic computations] Spravochnik po gidravlicheskim  
raschetam. Izd. 2-oe, perer. i dop. Moskva, Gos.energ. izd-vo,  
1957. 352 p. (MIRA 11:2)  
(Hydraulic engineering--Tables, calculations, etc.)

VASIL'YEV, O. F.

01-2-9/12

AUTHOR: Vasil'yev, O. F., and Tuzhilkin, A. M.

TITLE: Letter to the editor (Listno v redaktsiya)

PERIODICAL: "Gidrotekhnika i Melioratsiya", 1957, Nr 8, pp 48-49, (USSR)

ABSTRACT: The authors refer to an article published in the periodical "Gidrotekhnika i Melioratsiya", Nr 9, 1956, "Energy Losses of Fluids Moving over a Rectangular Overflow" by M. G. Dimitriyevskiy, Candidate of Technical Sciences, several aspects of which appear to them to be wrong. Two equations given by Dimitriyevskiy are replaced by equations of the authors, which are more simple and which are substantiated by experiments. The article contains 2 figures and one British (London) reference.

AVAILABLE: Library of Congress

Card 1/1

**AUTHOR**  
**TITLE:**

VASIL'YEV, O.F. (Moscow)

PA - 3077

The Theory of the Spiral Motion of a Fluid as Applied to the Outflow from an Opening in the Shape of an Air Nozzle. (Prilozheniye teorii vintovogo dvizheniya zhidkosti k zadache ob istechenii cherez otverstiya s obrazovaniyem vozduшной voronki, Russian).

**PERIODICAL:**

Izvestia Akad. Nauk SSSR, 1957, Vol 21, Nr 3, pp 108 - 114 (U.S.S.R.)

Received: 6 / 1957

Reviewed: 7 / 1957

**ABSTRACT:**

The investigation was carried out to determine the characteristics of a spiral stream which flows from infinity to an opening in a horizontal base under the assumption that the depth of the stream is constant and equals H. The influence of viscosity is neglected; the motion is regarded as homogeneous and the opening as infinitely small. The free surface is taken to be horizontally flat. For the general case the unhomogeneous equation, which contains the constants k and C, is written down. The solution is found by means of series and the equations for the circumferential velocity, for the radial velocity of the spiral stream and for the axial velocity are derived. It is shown that a solution with the help of improper integrals (FOURIER-BESSEL) can be found also. The following points were established: 1) if, by the activity of the plate opening, the layers on the surface of the plate (for example, ground ice lumps) should be

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The Theory of the Spiral Motion of a Fluid as PA - 3077  
Applied to the Outflow from an Opening in the Shape of an Air Nozzle.

cast off, then the rotary motion in the under layers is to be agitated and augmented while those in the top layers is to be diminished. 2) If the lower plate layers of the stream should be strengthened (washing away of deposits), then a rotation in the lower layers must be prevented, although in the necessary areas of the top layers of the stream it should be incited and increased. (2 illustrations and 3 citations from Slav publications).

ASSOCIATION: Moscow Institute for Construction Engineers.  
PRESENTED BY:  
SUBMITTED: 30.12.1956  
AVAILABLE: Library of Congress

Card 2/2

PHASE I BOOK EXPLOITATION 849

Vasil'yev, Oleg Fedorovich

Osnovy mekhaniki vintovykh i tsirkulyatsionnykh potokov (Principles of the Mechanics of Helical and Circulation Flows) Moscow, Gosenergoizdat, 1958. 142 p. 3,550 copies printed.

Ed.: Kiselev, P.G.; Tech. Ed.: Iarionov, G. Ye.

PURPOSE: The book may be of interest to scientific workers, research fellows, and engineers in scientific-research organizations working in the field of hydro- and aerodynamics, hydraulics, and hydraulic machinery.

COVERAGE: The author considers the theoretical foundations of a comparatively little treated part of hydrodynamics, namely, the mechanics of helical and circulation flows. The author limits himself to the case of a non-viscous fluid. Certain practical problems also are considered which pertain to flows with transverse circulation, flows in curved channels, and the formation of air eddies in a discharging fluid. However, the contents of the book may prove useful also in connection with other technical problems.

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Principles of the Mechanics (Cont.)

849

The book contains 22 figures and 2 tables. There are 84 references, 65 of which are Soviet (including 3 translations), 7 Italian, 4 English, 3 French, 2 German, 2 Czech, and 1 Roumanian.

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IS/ar  
11-17-58

VASIL'YEV, O.F., kand.tekhn.nauk

Fluid vibration in lift chambers of inclined locks caused by their sudden stop. Nauch.dokl.vys.shkoly; stroi. no.1:202-212 '58.

(MIRA 12:1)

1. Rekomendovana kafedroy gidravliki Moskovskogo inzhenerno-stroitel'nogo instituta imeni V.V. Kuybysheva.  
(Locks (Hydraulic engineering)) (Fluid mechanics)

VASIL'YEV, O.F., dots., kand.tekhn.nauk

Approximate differential equations of water vibration in chambers  
of inclined lifts and locks with centralized filling systems.

Nauch.dokl.vys.shkoly; stroi. no.2:243-251 ' 58.

(MIRA 12:1)

(Locks (Hydraulic engineering)) (Fluid mechanics)

VASIL'YEV, O.P., *Eng., kand. tekhn. nauk*

Integration of approximation differential equations for the fluctuation of water in the lifting chamber of an inclined ship lock. Nauch. dokl. vys. shkoly; stroi. no. 3:191-200 '58. (MIRA 12:1)

1. Rekomendovana kafedroy gidravliki Moskovskogo inzhenerno-stroitel'nogo instituta imeni V.V. Kuybysheva.  
(Locks (Hydraulic engineering))

~~VASIL'YEV, O. P. 1921. 10/10. 1921~~

Stresses in mooring lines of a ship in an inclined lock. Nauch.  
dokl.vys.shchety; ser. no. 4:187-194 '58. (MIR, 1959)

1. Rekomendovana katedroy upravlyaniy Moskovskogo inzhenerno-stroitel'nogo instituta imeni V.V. Kuybysheva.  
(Academy) (Locks (Hydraulic engineering))

VASILYEV, O.F.

AUTHOR: ~~Calculation~~ Vasil'ev, O.F.

SOV/24-58-6-23/35

TITLE: /of Discontinuous Waves of Small Height in an Open Channel  
(O raschete preryvnoy volny maloy vysoty v otkrytom rusle)

PERIODICAL: Izvestiya Akademii Nauk SSSR Otdeleniye Tekhnicheskikh  
Nauk, 1958, Nr 6, pp 119-121 (USSR)

ABSTRACT: The absolute velocity of propagation of the front of such  
a wave (cf. diagram on page 119) is given by the  
approximate formula

$$c = \sqrt{gh_s} \pm v \quad (h_s = \omega/B)$$

where  $v$  is the initial velocity of flow in the channel and  
 $\omega$  and  $B$  are the cross-sectional area and the width of the  
free surface in front of the wave respectively. The  
height of the wave is considered small if  $a/h$  is less or  
equal to 0.1. A discussion is given of the range of  
applicability of this formula in the case of complete

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Calculation

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/of. Discontinuous Waves of Small Height in an Open Channel

obstruction of the current (Eq 9) and in the case when the height of the wave is large (Eq 8).

There are 1 figure and 9 references (1 German, 2 French and 6 Soviet)

ASSOCIATION: Moskovskiy Inzhenerno-stroitel'nyy Institut (Moscow Engineering and Building Institute)

SUBMITTED: April 3rd, 1958

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SOV/24-58-10-6/34

AUTHOR: Vasil'yev, O. F. (Moscow)

TITLE: Dynamics of Flow and Hydromixture on a Deforming River Bed  
(Dinamika potoka gidrosmesi na deformiruyemom lozhe)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, 1958, Nr 10, pp 34-39 (USSR)

ABSTRACT: Previous work on the subject has been carried out by Levi (Refs.1 and 7), Gavrashenko (Ref.2) and Kochina (Ref.3). In Fig.1,  $aa$  is the profile of the stream bottom at time  $t$ , and  $a'a'$  is the profile at time  $t + dt$ , the change in the profile being brought about by the material deposited from the stream. Assuming that the current varies evenly with distance and slowly with time, the differential equations allowing for continuity, for deformation and movement of the stream bed, for fluid friction and for dynamic flow are established. The profile of the deposit is calculated on the basis of these equations and compared in Figs.5 and 6 with the profiles obtained from the Gavrashenko-Kochina solution and from the experimental results of Rusinov and Zadvornyy (Ref.6) for a homogeneous sand. The agreement is satisfactory. V. D. Zhurin gave advice and instruction during the course of the

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Dynamics of Flow and Hydromixture on a Deforming River Bed

work; the calculations were made by V. Dobrozhan, L. Rovkov and P. Sergeyev. There are 6 figures and 7 references; 6 of the references are Soviet and 1 English.

ASSOCIATION: Moskovskiy inzhenerno-stroitel'nyy institut (Moscow Civil Engineering Institute)

SUBMITTED: May 13, 1958.

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SOV/24-59-1-11/35

AUTHOR: Vasil'yev, O.F., (Moscow)  
TITLE: On Approximate Analysis of Waves of Surface Water  
and the Conditions Affecting Ships in Locks  
(O priblizhennom analize kolebaniy poverkhnosti vody  
i usloviy otstoya sudov v shlyuzakh)  
PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh  
Nauk, Energetika i Avtomatika, 1959, Nr 1, pp 78-89 (USSR)  
ABSTRACT: A theory of the longitudinal waves in the simplified  
form is applied to the hydraulic calculation of locks.  
An assumption is made that the lock chamber has a flat  
bottom and both reaches (channels) are prismatic and  
have also flat bottoms. The co-ordinates xyz are  
chosen in such a way that the plane xy is placed on the  
water surface with the x-axis directed parallel to the  
chamber with the origin placed at the point of entry  
(Fig 1). The linear longitudinal waves on the water  
surface are considered. The component  $u_x$  of the  
velocity of the water particles is much greater than  
those of  $u_y$  and  $u_z$ . The following denotations are

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On Approximate Analysis of Waves of Surface Water and the  
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used in the calculation:

- $l_k$  - length of the chamber;
- $b_k$  - width of the chamber at the water surface;
- $h$  - water depth in the chamber;
- $\omega_k$  - cross-section of water;
- $l_c$  - length of ship;
- $b_c$  - width of ship (at water line);
- $S$  - immersion of the ship;
- $\omega_c$  - cross-section of the immersed part of the ship;
- $W$  - volume of water displaced by the ship;
- $p$  - pressure of water;
- $g$  - gravitation;
- $\rho$  - density of water;
- $\gamma$  - volumetric weight of water;
- $t$  - time.

The dynamical equation is shown as Eq (1.4). The continuity expression (1.7) is based on the volume of water between the cross-sections I at the time  $t$  and II at  $t + dt$  (Fig 2 where  $a, a$  - water surface at  $t$ ;

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On Approximate Analysis of Waves of Surface Water and the  
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$a'a'$  - at  $t + dt$ ;  $b, b$  and  $b', b'$  - respective positions of ship's bottom). This equation can also be written as Eq (1.10) where  $\eta$  - ordinate of the water surface;  $p_0$  - pressure at the surface. An assumption is made that the ordinate of the floating plane of the ship  $\eta$  is equal to the ordinate of the free water surface  $\eta$  (Eq 1.11). Then, the equation (1.10) will take the form Eq (1.14). The latter equation becomes Eq (1.15) when  $\omega = \text{const}$  ( $c$  - wave velocity) or Eq (1.16) when  $\omega_c = \text{const}$ ,  $b_c = \text{const}$  and  $\omega = \omega_k - \omega_c$ . The limiting conditions of Eq (1.14) can be shown for the chamber as Eq (1.17) to (1.21). Similarly, the limiting conditions can be found for both channels when Eq (1.24) is considered for a length  $l$ . The waving force affecting the ship can be calculated from Eq (1.25) where  $S_c$  - submerged surface of the ship,  $n$  - vector of the internal normal to the surface  $S_c$ . The length of the ship is expressed as  $l_c = W/\omega_c$ . The calculation of the initial stage of filling the chamber (with one ship) is based on

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Eq (1.14) which is written in the form of Eq (2.1).  
It is assumed that  $\omega_c = \text{const}$  and

$$Q'(t) \approx Q'(0) = \text{const} \quad (2.2)$$

Then the integral of Eq (2.1) can be shown as Eq (2.3)  
where  $\int^*$  = partial solution of Eq (2.1), based on  
Eq (1.20) and (1.21), which can be defined as a sum of  
2 functions (Eq 2.4). The first function is found from  
Eq (2.5) which characterises the average level increase  
in the chamber as a function of time and the second from  
the expression:

$$Q_x = u_x \omega = Q \left( 1 - \frac{x}{l_k} \right)$$

and Eq (2.6). When the value:

$$x = l_{i-1} + x_i, \quad \chi(x) = \chi_i(x_i)$$

in Eq (2.6) is considered separately for each of the  
three chamber sections  $(0, l_1)$ ,  $(l_1, l_2)$ ,  $(l_2, l_k)$  then

Card 4/6 Eq (2.7) is obtained for the i-th section. The limiting

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conditions in this case can be defined as Eq (2.12) and (2.13) where  $X_1(x)$  corresponds to the same section as  $\eta_i$  and  $\chi_i$ . The expression (2.11) can be written as Eq (2.14) for each section. the more general form of which is shown as Eq (2.15) where  $A_i$  and  $B_i$  - constant integrations. As a result of the first limiting condition, Eq (2.12), it can be shown from Eq (2.13) and from the expression for  $c_i$  that Eq (2.16) is true for  $x = l_1$  and Eq (2.17) for  $x = l_2$ . The expression (2.18) results from the 2nd condition of Eq (2.12). From Eq (2.16) and (2.17) the formulae (2.23) can be found which, when substituted in Eq (2.18) give the transcendental Eq (2.24). The positive roots of this equation ( $v_1, v_2, \dots, v_n, \dots$ ) are included in the expression (2.25) which defines the specific frequency ( $\gamma_n$ ) of water waves in the chamber with the period  $T_n$ . The initial conditions (2.9) can be determined by solving the expression (2.10). This can be done when the formulae (2.27) are substituted in the Eq (2.29) to

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Eq (2.32). The final expression for the ordinate of water surface in the chamber can be shown as Eq (2.33) with the components corresponding to the sections, as in Eq (2.35). The general expression for the waving force (2.37) at the initial period is found when Eq (2.33) is substituted in Eq (1.26). This expression describes the waves reflected from the sluices and from the sides of the ship. There are 2 figures and 6 references of which 5 are Soviet and 1 English.

ASSOCIATION: Moskovskiy Inzhenerno -Stroitel'nyy Institut  
(Moscow Engineering Constructional Institute)

SUBMITTED: 30th September 1958

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SOV/24-59-2-19/30

AUTHOR: Vasil'yev, O. F. (Moscow)

TITLE: Problems of the Hydrodynamic Calculations of a Tilted Elevator for Transporting Ships (Zadachi gidrodinamicheskogo rascheta naklonnykh sudopod'yemnikov)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Energetika i avtomatika, 1959, Nr 2, pp 120-130 (USSR)

ABSTRACT: When designing the junction of the various waterways of the Bratsk system, the investigations were carried out by the Moscow branch of the Institute of Hydroelectric Constructions and the management of the Bratsk Power Station, in order to construct an elevator for the transportation of ships between two navigational waters. It consists of a tank moving on rails, and filled with water, in which the ship is placed (Fig 1). The problem of vibration of water surface in the tank can be defined for one of the two possibilities: (1) when the time for starting or stopping the elevator is relatively long, or (2) when the tank is allowed to stop abruptly. The latter consideration can be used when determining the surface vibrations in the case of emergency braking. The experiments were carried out with a 1:50 scale model of a tank of the following dimensions - length,  $l_k = 110$  m; width,  $b_k = 18$  m; depth,  $h = 3.65$  m;

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# Problems of the Hydrodynamic Calculations of a Tilted Elevator for Transporting Ships

slope of the road, 0.05 and velocity of the motion  $v = 0.8$  m/sec. The waves produced by an abrupt braking reached 1.5 m of height for a ship of 3330 m of water displacement, 85 m long, 14 m wide ( $b_c = 14$ ) 3.2 m maximum and 0.6 m minimum immersion. The experiment showed that the water level in the tank at the moment of waves generation due to the abrupt braking can reach the mean height as expressed by Eq (1.1), where  $\theta$  - road inclination (Fig.1),  $g$  - gravity. The water level defined by the wave crests is actually higher than it is shown by Eqs (1.2) and (1.3) (where  $\omega_k$  - cross section of water in the tank,  $\omega_c$  - cross-section of the immersed part of the ship, and  $b_c$  - width of ship at water-line of vessel). The dynamic equations of motion of the water in the tank can be expressed as Eqs (2.1) and (2.2) where  $j(t)$  - acceleration of the tank. The pressure is defined as Eq (2.3) ( $\zeta$  - ordinate of the

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# Problems of the Hydrodynamic Calculations of a Tilted Elevator for Transporting Ships

static water surface,  $p_0$  - pressure at the static water surface). The equation of continuity (2.7) can be defined from Eqs (2.4) - (2.6), where  $c$  - velocity of wave propagation along the tank, as calculated from Eq (2.8). The Eq (2.4) can be expressed as Eq (2.9) for the limiting conditions  $u_x(0, t) = u_x(l_k, t) = 0$ . When the values of  $\varphi$  and  $\omega$  are denoted by  $\zeta_1$  and  $\omega_1$  in the section  $(0, l_1)$ , then the combined expression, Eq (2.10), will define the introductory section for  $x = l_1$  and  $x = l_2$ , where  $l_c = l_2 - l_1$  = the length of the ship (Eq 2.11). The initial conditions for the calm water can be expressed as Eq (2.12). The forces in the expression (3.3), which affect the ship, consist of the inertia force, Eq (3.1) and the waving force (Eq 3.2). In order to find a solution of the problem it is necessary first to integrate the equation (2.6) for the initial conditions (2.12). When the motion is represented as in Fig 2, then the acceleration can be shown as Eq (4.1) and the formula (2.6) can be expressed as Eq (4.2).

Card 3/5 The latter equation, after integration (Ref 10) will take

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# Problems of the Hydrodynamic Calculations of a Tilted Elevator for Transporting Ships

the form of Eq (4.3), where  $X_n(x)$  is the function of the limiting conditions. These can be defined by Eqs (4.4) to (4.12). The expression (4.11) can be derived for each of the 4 intervals of time ( $\tau_{q-1}, \tau_q$ ) ( $q = 1, 2, 3, 4$ ).

This can be done as shown in Eqs (4.13) to (4.20). Thus, the final solution can be shown as Eqs (4.21) to (4.23) for  $\zeta$  and Eqs (4.24) to (4.30) for  $P$ . The safe tensile strength of the ropes holding the ship in the tank can be

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Problems of the Hydrodynamic Calculations of a Tilted Elevator for  
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calculated from the expressions (5.1) for normal conditions  
and (5.2) for emergency conditions. There are 2 figures  
and 13 references, of which 11 are Soviet and 2 German.

ASSOCIATION: Moskovskiy inzhenerno-stroitel'nyy institut (Moscow  
Construction Engineering Institute)

SUBMITTED: October 18, 1958.

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VASIL'YEV, O. F. (Novosibirsk)

"Fluid and Ship Oscillations in Locks and Ship Elevators."

report presented at the First All-Union Congress on Theoretical and Applied Mechanics, Moscow, 27 Jan - 3 Feb 1960.

VASIL'EV, O. F., Doc Tech Sci -- (diss) "Problems in the hydrodynamics of maritime devices." Novosibirsk, 1960. 13 pp; (Academy of Sciences USSR, Siberian Division, Joint Academic Council for Physico-mathematical and Technical Sciences); 200 copies; free; (KL, 25-60, 129)



GORB, T.V. [Horb, T.V.], doktor sel'skokhoz.nauk; TERESHCHENKO, F.K.,  
kand.biolog.nauk; BOGAYEVSKIY, O.T. [Bohalovs'kyi, O.T.], kand.  
veterin.nauk; POTEMKIN, M.D. [Pot'omkin, M.D.], akademik;  
KNIGA, M.I. [Knyha, M.I.]; POPOV, O.Ya., kand.sel'skokhoz.nauk;  
KHMELIK, G.G. [Hmelyk, H.H.], kand.sel'skokhoz.nauk; SHRAM, I.P.,  
kand.sel'skokhoz.nauk [deceased]; KOPIL, A.M., kand.sel'skokhoz.  
nauk; TSELYUTIN, V.K., kand.sel'skokhoz.nauk; BOZHKO, P.Yu., doktor  
sel'skokhoz.nauk; KROMIN, S.S., kand.sel'skokhoz.nauk; ZEMLYANSKIY,  
V.M. [Zemlians'kyi, V.M.], kand.sel'skokhoz.nauk; BORISENKO, A.M.  
[Borysenko, A.M.], kand.biolog.nauk; ZAKHARENKO, V.B., kand.biolog.  
nauk; SMIRNOV, I.V. [Smyrnov, I.V.], kand.biolog.nauk; KHRABUSTOVSKIY,  
I.F. [Khrabustovs'kyi, I.F.], kand.biolog.nauk; TORSTYANETSKAYA, M.N.,  
[Trostianets'ka, M.N.], assistent; ALESHKO, P.I., inzh.; VASIL'YEV,  
Vasyl'iev, O.F., kand.tekhn.nauk; BUGAYENKO, I.I. [Buhaienko, I.I.],  
starshiy prepodavatel'; TRAKHTOMIROVA, O.O., kand.ekonom.nauk;  
BUTKO, S.D., kand.ekonom.nauk; TELESNIK, K.G. [Teleshyk, K.H.],  
doktor ekonom.nauk; YEROSHENKO, V.D., kand.ekonom.nauk; LISIY, I.Y.  
[Lysyi, I.I.], red.; YEROSHENKO, T.G. [Yeroshenko, T.H.], tekhn.red.

[Handbook for zootechnicians] Dovidnyk zootekhnika. 2., dopovnene  
i pereroblene vyd. Kyiv, Derzh.vyd-vo sil's'kohospodars'koi lit-ry  
URS, 1960. 728 p. (MIRA 15:2)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni V.I.  
Lenina (for Potemkin). 2. Chlen-korrespondent Vsesoyuznoy akademii  
sel'skokhozyaystvennykh nauk imeni V.I.Lenina (for Kniga).  
(Stock and stock breeding)

VASIL'YEV, O.F. ; PRITVITS, N.A. ; TITOV, V.M.

Some hydronamic calculations relating to methods for controlling  
larvae of blood-sucking midges in rivers. Izv.Sib.otd.AN SSSR  
no.8:124-134 '60. (MIRA 13:9)

1. Institut gidrodinamiki Sibirskogo otdeleniya AN SSSR.  
(Insecticides)

VASIL'YEV, O.F., kand.tekhn.nauk

The height of waves rolling against embankments. Gidr.stroi.  
29 no.3:48 Mr '60. (MIRA 13:6)  
(Waves)

VASIL'YEV, O.F.

Observations on the state of the Usoy dam on Sarez Lake in  
1956. Izv.vses.geog.ob-va 92 no.5:427-433 S-O '60.  
(MIRA 13:9)  
(Sarez Lake--Landslides)

VASIL'YEV, O.F. (Novosibirsk)

Solution of equations of the wave action of water and a ship  
in an oblique navigation lock chamber. Izv. AN SSSR. Otd. tekhn.  
nauk. Mekh. i mashinostr. no. 4: 54-64, 11-Ag '61. (MIRA 14 8)

1. Institut gidrodinamiki Sibirskogo otdeleniya AN SSSR.  
(Locks (Hydraulic engineering)) (Wave mechanics)

VASIL'YEV, O.F. (Novosibirsk)

Approximate equations of the wave action of water and a ship in the navigation-lock chamber. Izv. AN SSSR. Gtd. tekhn. nauk. Mekh. i mashinostr. no. 3:78-83 My-Je '61. (MIRA 14:6)

1. Institut gidrodinamiki Sibirskogo otdeleniya AN SSSR.  
(Locks (Hydraulic engineering)) (Wave mechanics)

VASIL'YEV, O.F.

Approximate equations of the bound vibrations of water and a ship in the chambers of transporting ship elevators and sluices. Dokl. AN SSSR 138 no.6:1309-1312 Je '61. (MIRA 14:6)

1. Institut gidrodinamiki Sibirskogo otdeleniya AN SSSR. Predstavleno akademikom P.Ya.Kochinoy.

(Hydrodynamics) (Vibration)

VASIL'YEV, O.F. (Novosibirsk)

Wave action of water and a ship in the chamber of an inclined  
navigation lock. Izv. AN SSSR. Otd. tekhn. nauk. Mekh. i mashinostr  
no. 1: 167-171 Ja-F '62. (MIRA 15:3)

1. Institut gidrodinamiki Sibirskogo otdeleniya AN SSSR.  
(Locks (Hydraulic engineering))



BUKREYEV, V.I., inzh.; VASIL'YEV, O.F., doktor tekhn.nauk; GLADYSHEV, M.T.

Graphoanalytic calculation of pressure in a hydraulic system  
with an accumulator supply. Vest.mashinostr. 42 no.8:30-33  
Ag '62. (MIRA 15:8)

(Hydraulic machinery)

VASIL'YEV, O.F. (Novosibirsk)

Nonstationary flow of a viscoplastic quicksand. Izv. AN  
SSSR. Mekh. i mashinestr. no.6:69--73 N-D '63.  
(MIRA 17:1)

1. Institut gidrodinamiki Sibirskogo otdeleniya AN SSSR.

VASIL'YEV, O.F.; GODUNOV, S.K.; FRITVITS, N.A.; TEMNOYEVA, T.A.;  
PRYAZINOVA, I.L.; SHUGRIN, S.M.

Numerical method for calculating the propagation of long waves  
in open river beds and its application to the flood problem.  
Dokl. AN SSSR 151 no.3:525-527 J1 '63. (MIRA 16:9)

1. Institut gidrodinamiki Sibirskogo otdeleniya AN SSSR.  
Predstavleno akademikom P.Ya.Kochinoy.

VASILYEV, O.F.; KHAPILOVA, N.S. (Novosibirsk)

"An analysis of axisymmetric swirling inviscid flow in bounded regions"

report presented at the 2nd All-Union Congress on Theoretical and Applied  
Mechanics, Moscow, 29 January - 5 February 1964

ATAVIN, A.A.; VASILYEV, O.F.; PRITVITS, N.A.; SHUGRIN, S.M. (Novosibirsk)

"Unsteady problems of open-channel hydraulics"

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 January - 5 February 1964

VASIL'YEV, O.F.

Use and experimental testing of the approximate theory of  
fluctuations in the chamber of an inclined ship elevator.  
Izv. SO AN SSSR no.2. Ser. tekhn. nauk no.1:89-100 '64.  
(MIRA 17:8)

1. Institut gidrodinamiki Sibirskogo otdeleniya AN SSSR,  
Novosibirsk.

ATAVIN, A.A.; VASIL'YEV, S.F.

Numerical methods for calculating coupled water surface and ships' vibrations in locks and inclined ship elevators. Determining the dynamic action on a ship. Izv. SO AN SSSR no.6 Ser. tekhn. nauk no.2: 47-58 '64. (MIRA 17:10)

1. Institut gidrodinamiki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

VASIL'YEV, O.F. (Novosibirsk); VOYNOV, A.K. (Novosibirsk); ROMANOV, Ye.  
M. (Novosibirsk)

Experimental investigation of quicksand flow in a stratum.  
Izv. AN SSSR. Mekh. i mashinostr. no. 2:179-182 Mr-Ap '64.  
(MIRA 17:5)



VASIL'YEV, O.F. (Novosibirsk); TEMNOYEVA, T.A. (Novosibirsk);  
SHUGRIN, S.M. (Novosibirsk)

Numerical method for calculating nonsteady flows in open  
channels. Izv. AN SSSR. Mekh. no.2:17-25 Mr-Apr '65.  
(MIRA 18:6)

L 60251-65 EWT(d) PG-4 IJP(c)

ACCESSION NR: AP5018202

UR/0207/65/000/003/0097/0099

AUTHORS: Vasil'yev, O. F. (Novosibirsk); Khapilova, N. S. (Novosibirsk) . 26

TITLE: Equations of motion of a thin fluid layer on the surface of a rotating body of rotation

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 3, 1965, 97-99

TOPIC TAGS: differential equation, fluid mechanics, viscous fluid

ABSTRACT: The authors study nonsteady state flow of a thin layer of fluid on the surface of a body of rotation, rotating with variable angular velocity about its axis. They assume the presence of an arbitrary velocity field along the body's axis and precipitation of particles from the free surface. They use the method of averaging to derive a system of equations for the layer. The system of differential equations is derived from the general equations of viscous fluid motion in a cylindrical coordinate system. The authors obtain formulas for the velocity field and the free surface.

ASSOCIATION: none

SUBMITTED: 01Dec64

ENCL: 00

SUB CODE: ME, MA

NO REF SOV: 003

OTHER: 000

Card 1/1 *170*

VASIL'YEV, O H , ED.

N/5  
912.675  
.73

NEMETSKO-RUSSKIY SLOVAR' PO RAKETNOY  
TEKHNIKE [ GERMAN-RUSSIAN DICTIONARY OR  
ROCKET ENGINEERING ] POD RED. YU. A.  
POBEDONOSTSEV. MOSKVA, GOSTEKHIZDAT,  
1950.

212 P.

ADDED T.P. IN GERMAN.

MAMALUY, Aleksandr Prokof'yevich, kand. ekon. nauk, dots.; VASIL'YEV, O.M., otv. red.;  
BUTAKOVA, N.S., red.; CHERNYSHENKO, Ya.T., tekhn. red.

[Commodity production in the period of transition from capitalism  
to socialism in the U.S.S.R.] Tovarnoe proizvodstvo v perekhodnyi  
period ot kapitalizma k sotsializmu v SSSR. Khar'kov, Izd-vo  
Khar'kovskogo gos.univ. im. A...Gor'kogo, 1958. 45 p. (MIRA 11:12)  
(Russia--Economic conditions)

VASIL'YEV, O. N., YEMEL'YANOV, M. D. and SIDEL'NIKOV, I. A.

"New Methods of Investigation Vestibular Function" - p. 55

Voyenno Meditsinskiy Zhurnal, No. 10, 1962

VASIL'YEV, O.P.

[Elements of the calculation of some parameters of  
magnetic drums] Elementy rascheta nekotorykh parametrov  
magnitnykh barabanov. Moskva, In-t tochnoi mekhaniki i  
vychislitel'noi tekhniki AN SSSR, 1962. 80 p.  
(MIRA 17:3)

VASIL'YEV, O.P., inzh.

Analysis of relationships which are considered in the  
selection of dimensions for a magnetic drum. [Trudy] MVFU  
no.2:81-85 '59. (MIRA 13:5)  
(Magnetic memory (Calculating machines))

VASIL'YEV, O.T.

Moscow. Vysshaya tekhnicheskoye uchilishche imeni Bauman. Kafedra matematicheskikh mashin

Vyshtitel'naya tekhnika (Computer Techniques) Moscow, Mashgiz, 1959. 153 p. (Series: Moscow. Vysshaya tekhnicheskoye uchilishche. Sbornik, No. 2) 2,500 copies printed.

Ed.: B.V. Anisimov, Candidate of Technical Sciences; Tech. Eds.: B.I. Medvedev and A.P. Vavrova; Managing Ed. for Literature on Machine Building and Instrument Construction: A.V. Pokrovskiy, Engineer.

PURPOSE: This book may be useful to aspirants and other students specializing in computer technology, and also to designers and engineering and technical personnel who make use of electronic computers.

SCOPE: The articles contain the results of theoretical and experimental studies on the performance of various components of electronic computers. Among the topics discussed are program storage, control devices, the connection between the parameters of an algorithm and a machine, etc. The application of these components to the control of technological processes is also discussed. Authors: V.V. Cad. Tech. Sci. and V.N. Golubkin, Candidate of Technical Sciences. Analysis of the Quality of Servo Systems With Discrete Element

Dobrov, Ye.V., Engineer. The Effect of Block Diagram Parameters on the Performance Quality of a Tubeless Direct Current Operational Amplifier 86

Anisimov, B.V., Candidate of Technical Sciences, V.N. Golubkin, Candidate of Technical Sciences, and Yu.M. Demant'izel, Engineer. Device for Transforming the Form of Rectangular Pulses 56  
Trubnikov, M.K., Candidate of Technical Sciences, and Ye.I. Nekrylov, Engineer. Certain Principles of Constructing Local Control by External Memory Devices 21

Vlasenko, V.Y., Candidate of Technical Sciences, G.S. Zhidkov, Professor, A.M. Demant'izel, Engineer, and I.M. Antonov, Engineer. Method of Forming the Images of Numbers by Means of a Ferrite Matrix 64

Shvayder, Yu.A., Candidate of Physical and Mathematical Sciences. The Connection Between the Parameters of an Algorithm and of a Machine 70

Anisimov, B.V., Candidate of Technical Sciences, V.N. Golubkin, Candidate of Technical Sciences, and A.Ya. Savel'yev, Engineer. Device for the Control of Recording of Information on Magnetic Tape 81  
Mastlitskiy, G.F., Engineer. Analysis of Certain Relationships for an Economical Selection of the Dimensions of a Magnetic Drum 81

Anisimov, B.V., Candidate of Technical Sciences, and Yu. V. Vinogradov, Engineer. On the Problem of the Exactness of the Representation of Continuously Varying Values in a Numerical Code 86  
Shvayder, Yu. A., Candidate of Physical and Mathematical Sciences. Solution of Boundary Value Problems by the Method of Polynomial Approximations 95

Markov, A.Ya., Engineer. Certain Considerations on the Preventive Control of Electronic Computers 99

M.S. Saplin, Engineer. Photoelectric Device Which Receives Printed Numerical Signs 108  
Palanovskiy, A.M., Engineer. Analysis of Information Storage Components of Computers 121

Chetverikov, V.M., Candidate of Technical Sciences. Relay Integrating Drive With Electromagnetic Powder Clutch 130  
Kalanikov, V.A., Engineer. Certain Algorithms for the Rational Planning of Production 142

Kuznetsov, M.M., Candidate of Technical Sciences. Circuit Mechanisms for Programmed Control 148 7



LUK'YANOVA, Yelena Mikhaylovna [Lukianova, O.M.], kand. med. nauk;  
~~VASIL'YEV, O.P.~~ [Vasil'iev, O.P.], translator; BEREZNITSKAYA, S.A.  
[Bereznits'ka, S.A.], red.; BYKOV, M.M., tekhn. red.

[Prevention and treatment of acute catarrhs of the respiratory tract in children] Zapobihannia ta likuvannia histrykh katariv dykhal'nykh shliakhiv u ditei. Kyiv, Derzh. vyd-vo URSR, 1961. 18 p. (MIRA 15:3)  
(CATARRH) (CHILDREN—DISEASES)

SOV-113-58-9-6/19

AUTHORS: Gurvich, I.B., Candidate of Technical Sciences, Vasil'yev, O.S., Sukhanov, V.A.

TITLE: The Limitation of Loads at the Running-in of the Engine in the Automobile (Ogranicheniye nagruzok pri obkatke dvigatelya na avtomobile)

PERIODICAL: Avtomobil'naya promyshlennost', 1958, Nr 9, pp 15-16 (USSR)

ABSTRACT: In running-in the engine, to accomplish the mechanical finishing of the engine surfaces, a disk used to be inserted between the carburetor and the feed pipe in light cars. This was not necessary for trucks, since there are enough means to direct the number of revolutions. The inserted disk behind the carburetor had the disadvantage that the atomization of the fuel in the engine became worse and caused settling of the gasoline on the walls of the supply pipe system finally resulting in scale formation in the compression chambers and on the piston bottoms. A suggestion is made to replace the inserted disk by a baffle plate (Figure 2) for fixation of the deflection angle. This eliminates the necessity of separating the carburetor from the feed pipe after the 1,000-km-running-in period, to remove the disk. In the

Card 1/2

SOV-113-58-9-6/19

The Limitation of Loads at the Running-in of the Engine in the Automobile

case of the baffle plate only a screw is unscrewed and the plate easily removed. Five M-20 and 3 ZIm engines were given test runs to try both principles (Table 2). They resulted in favor of the baffle plate, since there are none of the disadvantages caused by the disk and an additional economy of 1 to 1.25 liters of gasoline per 100 km running-in consumption.

There are 4 graphs, 1 diagram and 2 tables.

ASSOCIATION: Gor'kovskiy avtozavod (The Gor'kiy Motor Vehicle Plant).

1. Automobiles--Performance    2. Combustion engines--Test methods

Card 2/2

VASIL'YEV, Oleg Sergeyevich; KOSTIN, V., red.; TROYANOVSKAYA, N.,  
tekhn.red.

[Their morals] Ikh moral'. Moskva, Gos.izd-vo polit.lit-ry,  
1959. 64 p. (MIRA 12:6)  
(United States--Social conditions)

VASIL'YEV, P. (Kurgan)

Heroism. Pozh.delo 5 no.4:23 Ap '59.  
(Kurgan--Fire Extinction)

(MIRA 12:5)

VASIL'YEV, P.; SHIRKEVICH, N.

Consolidating district and village budgets. Fin.SSSR 20  
no.12:39-47 D '59. (MIRA 12:12)  
(Budget)

VASIL'YEV, P., inzh.

Plant must be enlarged. Mas.ind.SSSR 31 no.1:25-26 '60.  
(MIRA 13:5)

1. Biyskiy zavod "Molmashstroy".  
(Biysk--Meat industry--Equipment and supplies)

VASIL'YEV, P., red.; LAUL, Yu., tekhn. red.

[Fulfillment of the seven-year plan ahead of time] Semiletku  
dosrochno. Tallinn, Estonskoe gos. izd-vo, 1961. 260 p.

(MIRA 16:1)

1. Eestimaa Kommunistlik Partei. Keskkomitee. Propaganda- ja  
Agitatioonisakond.

(Estonia--Agriculture)



MAMUSHKIN, P.; MEN'SHIKOV, V.; VASIL'YEV, P. (Bryanskaya oblast', Novozybkovskiy rayon); BOBROVSKAYA, Z.; KULAGIN, N.; TROITSKIY, L.; NURULLAYEV, S., operator

Editors's mail. Sov. profsoiuzy 16 no.18:49-51 S '60.(MIRA 13:10)

1. Sekretar' partbyuro torfopredpriyatiya "Vasil'yevskiy mokh" (for Mamushkin). 2. Instruktor metodicheskogo otdela Tsentral'nogo Doma kul'tury zheleznodorozhnikov (for Men'shikov). 3. Chleny prezidiuma dorozhnogo komiteta profsoyuza rabotnikov zheleznodorozhnogo transporta Sverdlovskoy zheleznoy dorogi (for Bobrovskaya, Kulagin). 4. Zaveduyushchiy otdelom kul'tury i fizkul'tury Chelyabinskogo oblprofsoвета (for Troitskiy). 5. Novo-Bakinskiy neftepererabatyvayushchiy zavod (for Nurullayev).

(Perm--Communist education)

CHIOGOLYA, G.; BERAL, Kh.; VASIL'YEV, P.; POPOVICH, N.; KOSMIN, Anna;  
MADZHARU, M.; YAKOB, A.; LAKATOSH, L.; DIAKU, D.; PATRASHKU, S.

Determination of bismuth in Romanian drugs by means of EDTA titration.  
apt.delo 8 no.6:67-69 N-D '59. (MIRA 13:4)

1. Iz Instituta po lintrolyu kachestva medikamentov Ministerstva  
zdravookhraneniya Rumynskoy Narodnoy Respubliki, Bukharest.  
(BISMUTH--ANALYSIS)

VASIL'EV, P.

Transport zheleznodorozhnyi v SSSR. [Railroad transportation in the U.S.S.R.]. (Mater. sov. ents., 1949, v. 19, col. 213-214).

DLC: AE55.43

SO: SOVIET TRANSPORTATION AND COMMUNICATIONS, A BIBLIOGRAPHY, Library of Congress Reference Department, Washington, 1952, Unclassified.

VASIL'YEV, P.

Operation of refrigerating plants. Mias. ind. SSSR 30 no.5:44-46  
'59. (MIRA 13:1)

1. Moskovskiy myasopererabatyvayushchiy zavod.  
(Moscow--Cold storage warehouses)

VASIL'YEV, P.

Economy of public work with the comprehensive utilization of  
forestry materials. Sots.trud 4 no.7:26-35 J1 '59.

(MIRA 13:4)

(Woodpulp industry)

VASIL'YEV, P.

An example of conscientious service. Pozh.delo 3 no.2:24 P '57.  
(Taganfog--Firemen)

AUTHOR: Vasil'yev, P., School Director 27-58-6-21/35  
TITLE: In Honor of the Jubilee of the Komsomol (V chest' yubileya komsomola)  
PERIODICAL: Professional'no-Tekhnicheskoye Obrazovaniye, 1958, Nr 6, p 28 (USSR)  
ABSTRACT: Students of the Technical School Nr 8 pledged themselves to improve and increase their productivity in honor of the Fortieth Anniversary of the Komsomols.  
ASSOCIATION: Tekhnicheskoye uchilishche NO 8, Rostov-na-Donu (Rostov-on-Don Technical School Nr 8)  
Card 1/1 1. Educational dynamics-USSR 2. Education-USSR

*Vasil'yev, P.*

VASIL'YEV, P., inzh.

Modern designs of concrete bridge girders with rigid reinforcements.  
Avt. dor. 21 no.1:20-22 Ja '58. (MIRA 11:1)  
(Girders)



VASIL'YEV, P. (Taganrog)

Rubber washers for RS-A and RS-B nozzles. Pozh.delo 6 no.6:23 Je  
'60. (MIRA 13:7)

(Fire departments--Equipment and supplies)

BEL'SKIY, V.; VASIL'YEV, P., master radiosporta

Ultrahigh frequency radio broadcasting. Radio no.6:13-14 Je '60.  
(MIRA 13:7)

1. Nachal'nik oddela radioveshchaniya radio upravleniya Ministers-  
tva svyazi RSFSR (for Bel'skiy).  
(Radio, Shortwave)

VASIL'YEV, P., master radiosporta, uchastnik Pervykh mezhdunarodnykh  
sorevnovaniy radistov.

Quality should have precedence. Radio no.6:14-15 Js '60.  
(Radio--Operators)

KAMMAL, Uno; TORMISTO, Vello; TULIK, A. [translator]; VASIL'YEV, P., red.;  
VEBER, Kh., tekhn. red.

[Tallinn] Tallin. Tallin, Estonskoe gos. izd-vo, 1960. 78 p.  
(MIRA 14:11)  
(Tallinn)

L 55/84-35 EEO-2/ENG(j)/FSS-2/ENG(r)/ENT(1)/FS(v)-3/EEC(k)-2/ENG(v)/FCC/ENH(d)/  
EEC-4/EEC(t)/ENG(a)-2/ENG(c)/ENH(h) Po-4/Pe-5/Pq-4/Pac-4/Pae-2/Peb/Pi-4

UR/0299/65/000/006/0022/0026

ACCESSION NR: AP5014809

AUTHOR: Vasil'yev, P.; Kovalev, V.; Terent'yev, V.

TITLE: The first space expedition; biomedical research

SOURCE: Aviatziya i kosmonavtika, no. 6, 1965, 22-26

TOPIC TAGS: space medicine, medical conference, space flight, space environment, space environment condition, astronaut space psychology, space physiology

ABSTRACT: In the early part of 1965, a conference on space medicine took place in the Soviet Union. The conference was attended by physicians, biologists, engineer, pilot-astronauts, and test pilots. It dealt with the results of physiological research involved in the flight of the Voskhod-1 spacecraft. More than 50 papers were presented, describing mainly the effects produced on the human body by such elements as G-force, noise, vibration, weightlessness, isolation, hypodynamia, and the rapid succession of day and night.

Soviet scientists are reported to have developed a telemetering system which transmits from spacecraft data on astronauts' cardiac activity, respir-

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ation, nervous activity, and other physiological functions. However, information supplied through the telemetering system did not fully satisfy those physicians who consider it imperative to subject astronauts to a rigorous medical examination at various flight stages using special checkup methods.

Reports and conclusions of the flight crew and ground crew members, I. Akhmediev, I. Balakhin, A. Belyakov, A. Borov, A. Yercmin, I. Kas'yan, A. Kotovskaya, V. Lebedev, I. Popov, Ye. Popov, Ye. Fedorov, G. Khlebnikov, and Ye. Yuganov.

The flight of the Voskhod spacecraft was executed under favorable radiation conditions: the spacecraft's instruments never reached the inner radiation belt. Solar activity was normal throughout the flight, and the total radiation to which the human body was subjected did not exceed 0.15 rem.

Before launch, air temperature in the cabin was +17° C, relative humidity was 47%, pressure was 762 mm Hg, oxygen constituted about 20% of the air, and carbon dioxide constituted about 1%. During the flight, none of these variables exceeded the permissible limits: the barometric pressure

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ACCESSION NR: AP5014809

varied between 762 and 800 mm Hg, the temperature was between 15 and 22° C, the humidity was between 47 and 80%, and the oxygen content was between 20 and 22.8%.

During the flight each astronaut consumed 1.4--1.8 l of liquid, including 0.2--0.6 l of drinking water. During and immediately after the flight the protein metabolism appeared to be elevated above that of the preflight period.

Upon entering the spacecraft, all astronauts remained calm and composed. However, as the take-off time approached, a gradual rise in neuroemotional stress was observed. Pulse and respiration rates increased. During the last 5 minutes preceding the launch, pulse rates increased by 23% for V. M. Komarov, 22% for L. P. Focktistov, and 56% for B. B. Yegorov.

It was noted with interest that the pulse and respiration rates were lower in the group flight than in the comparable individual flights. Analysis of the dynamics of the pulse rate of astronauts during space flight has led to the conclusion that the degree of neuroemotional stress depends on the flight pattern and the training and personality traits of astro-

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ACCESSION NR: AP5014809

nauts. The transition from G-force to weightlessness was smooth and "unnoticed."

Arterial pressure underwent a two-phase change, decreasing during the first few minutes and then increasing to a level above the normal range.

abnormal water excretion.

The available data are indicative of fast adaptability of man to the abnormal environment of space flight. The spacecraft's commander,

experience, was better qualified for this assignment than the physician. One of the prime objectives of the present research was, therefore, a comparative study of the working efficiency of the pilot and the physician. The method used in this study involved visual perception tests at various flight stages.

During orbital flight Yegorov and Feoktistov experienced the sen-

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ACCESSION NR: AP5014809

sation were independent of the spacecraft's stability.

There are strong indications that hypodynamia and weightlessness, which lower hydrostatic blood pressure and alter the afferent conditions of the nervous system, as well as increased neuropsychological tension are

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: LS, SV

NO REF SOV: 000

OTHER: 000

ATD PRESS: 4011-F

Card 5/5

VASIL'YEV, P.A., kand. tekhn. nauk

Approximate method for calculating creep deformations during the  
determination of temperature stresses in massive concrete plates.  
Izv. VNIIG 47:120-128 '52. (MIRA 12:6)  
(Concrete) (Creep of materials)

SURKOV, S. K. Eng., VASIL'EV, P. A. ENG., LIPKIN, B. YU. Eng., NAYDIS, V. A. Eng.,  
KULAKOV, A. A. ENG., SOLOV, M. M. Docent, FRUMINSKIY, P. G. Prof.

Electric Power Distribution

Electric power supply for industrial enterprises. Elektrichestvo No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

VASIL'YEV, P. A.

USSR/Electronics - Telephones

Card 1/1 : Pub. 133 - 8/21

Authors : Vasil'ev, P. A., and Mazel', S. I.

Title : Improvements which have found an application in the operations and construction of city telephone stations

Periodical : Vest. svyazi 9, 14-16, Sep 1954

Abstract : Two articles are presented which describe improvements in the operation and construction of city telephone apparatuses and their parts. Diagrams; illustration.

Institution : ...

Submitted : ...

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